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NEWMAN, MICHAEL A

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MASASHI TAMURA and NARIHIRO MATOBA

Appeal 2009-011562
Application 10/553,424
Technology Center 2600

Before MAHSHID D. SAADAT, MARC S. HOFF,
and ELENI MANTIS MERCADER, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

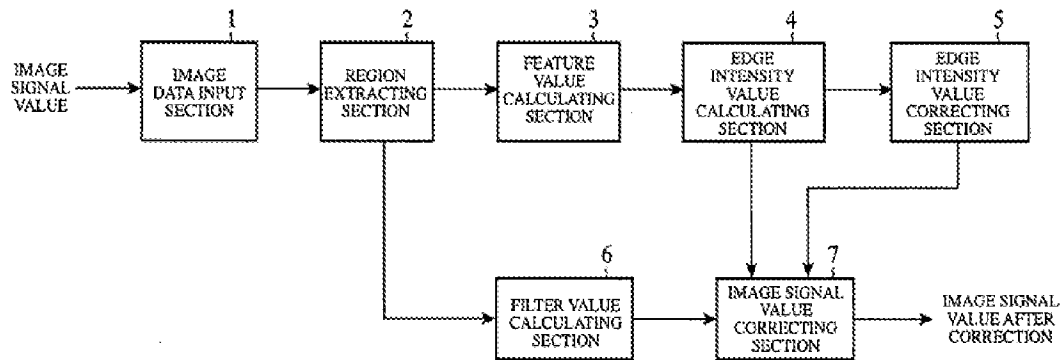
Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 5-7 and 9. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

INVENTION

Figure 1 is reproduced below:

FIG.1



Appellants' Figure 1 and claimed invention are directed to noise reduction processing. Image data input section 1 inputs the image signal values (i.e., pickup color signals of the individual pixels). The region extracting section 2 extracts a 5x5 pixel specified region (i.e., pixel window), the center of which is the pixel of interest. The feature value calculating section 3 calculates the feature values of the micro regions in the pixel window (i.e., by defining a region having four pixels as a micro region

with the pixel of interest at its center) and carries out the expression $D(i, j) = (P(i, j) + P(i+1, j) + P(i, j+1) + P(i+1, j+1)) / 4$, generating a 4x4 feature value window. The edge intensity value calculating section 4 multiplies the feature values in the feature value window by weighing factors. *See generally* Fig. 1; Spec. 10-12.

Claim 5, reproduced below, is representative of the subject matter on appeal:

5. An image processing method comprising:

- a feature value calculation step of calculating feature values of micro regions in a specified region having a pixel of interest at a center, from pickup results of an image pickup device that has a color filter with a particular color at each of [the] pixels arrayed two-dimensionally;

- a binarization step of binarizing the feature values of the micro regions calculated by the feature value calculation step;

- a contour detection step of detecting a contour using the feature values binarized by the binarization step; and

- an image signal value correction step of correcting an image signal value of the pixel of interest using image signal values of a plurality of pixels including the pixel of interest in a same direction as the contour detected by the contour detection step.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Kotaki	US 5,200,841	Apr. 6, 1993
Adams	US 7,023,487 B1	Apr. 4, 2006 (filed Jan. 25, 2002)
Acharya	US 6,229,578 B1	May 8, 2001

The following rejections are before us for review:

1. The Examiner rejected claims 5, 6 and 7 under 35 U.S.C. § 103(a) as unpatentable over Kotaki in view of Adams.
2. The Examiner rejected claim 9 under 35 U.S.C. § 103(a) as unpatentable over Kotaki in view of Adams and further in view of Acharya.

ISSUE

Did the Examiner err by determining that Kotaki teaches the limitation of “*a feature value calculation step of calculating feature values of micro regions in a specified region having a pixel of interest at a center, from pickup results of an image pickup device that has a color filter with a particular color at each of [the] pixels arrayed two-dimensionally,*” as recited in independent claim 5 (emphasis added)?

ANALYSIS

Appellants argue (App. Br. 8) that individual pixels are not calculated feature values. The claim requires “a feature value calculation step of calculating feature values of micro regions in a specified region having a pixel of interest at a center, from pickup results of an image pickup device that has a color filter with a particular color at each of [the] pixels arrayed two-dimensionally.” Appellants clarify (Reply Br. 3) that the micro-regions in question are in a specified region having a “pixel of interest” at a center. As such, Appellants assert (Reply Br. 3) that the micro-regions being

subjected to feature value calculation are, therefore, themselves composed of pixel-level image data. Accordingly, Appellants conclude that if the micro-region does not contain pixels, (i.e., it is purely analog video signals used to calculate the pixel values as asserted by the Examiner (Ans. 8-9)), then the micro-region cannot be part of a region having a pixel of interest at the center thereof as required by claim 5.

We are persuaded by Appellants' argument. In other words, we agree with Appellants that the recited claim language of "calculating feature values . . . having *a pixel* of interest at a center, from pickup results of an image pickup device" (emphasis added) requires that a pixel is already present and there is a calculating feature value based on that pixel. This is contrary to the Examiner's interpretation (Ans. 8-9) of using the analog video signals to create/calculate a pixel.

For the above reasons, we will reverse the Examiner's rejection of claim 5 and for similar reasons the rejections of claims 6, 7, and 9 as none of the additionally relied upon references by the Examiner cure the above cited deficiency.

CONCLUSION OF LAW

The Examiner erred by determining that Kotaki teaches the limitation of "*a feature value calculation step of calculating feature values of micro regions in a specified region having a pixel of interest at a center, from pickup results of an image pickup device that has a color filter with a*

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particular color at each of [the] pixels arrayed two-dimensionally” as recited in independent claim 5 (emphasis added).

ORDER

The decision of the Examiner to reject claims 5-7 and 9 is reversed.

REVERSED

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